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SCUBA DIVER STUDIES SEA OTTER FCRAGE

Making a range study to determine trends in the availability of animal feed is not usually in the realm of the SCUBA diver but when the animal is a sea otter and the "range" is under several fathoms of water, a diving biologist is the man for the job.

This innovation in range studies is announced by the Department of the Interior. The site of the operation is Kuluk Bay, Adak, Aleutian Islands National Wildlife Refuge. The pioneering is being done by the Bureau of Sport Fisheries and Wildlife, United States Fish and Wildlife Service. A typical frogman's suit, with the self-contained underwater breathing apparatus (SCUBA), is used. Two lungs are provided, one of them being held in reserve in case extra decompression time becomes necessary.

The project is intended as a sea otter food study in an area of growing sea otter population. Kuluk Bay was chosen because a small pod of sea otters has already established itself there, it is typical sea otter habitat, and a nearby Naval Base facilitates the logistics of the project. Needless to say the water is usually cold and often whipped to violence by high winds. Activity is often hampered by waves and weather.

Because of the newness of the project no definite conclusions have been reached except to verify that in the portions of Kuluk Bay explored there is plenty of sea otter food and lots of other sea life in which the sea otter has no interest. The sea urchin, a shellfish which looks like a cockleburr, is a primary article of diet for the otter. It was found on the ocean floor in numbers.

The fringed greenling, a couple varieties of crabs, and the rock oyster--all favorites of the sea otter--are to be found in the bay. So also are such other mollusks as whelks, mussels, chitons and clams. Other sea life includes the sea eucumber, starfish, brittle stars, and sand dollars. In some places shrimp was observed in large concentrations but the sea otter is not among those animals which relish that particular type of shellfish.

The diver has found the bottom of the bay rather rugged in terrain, with 40foot underwater cliffs not unusual. This has made scientific sampling of the area
a bit difficult. Also sampling an area in which the fauna was mobile was found to
be much different from sampling areas in which molluska were attached to each other
and to the bottom so firmly that it takes a lot of prying with a metal bar to pull
them apart.

One sample, taken from the sea bottom nine feet square and in 50 feet of water, resulted in a catch of 255 specimens weighing a total of $32\frac{1}{2}$ pounds. Mussels--127 of them--accounted for nearly 30 pounds of this. Then there were 56 sea urchins weighing just over a pound, 27 rock oysters, 37 clams and eight whelks.

The study is not sufficiently advanced to know the maximum depth limits at which an otter feeds but indications in other studies are that most of the feeding of this deep-diving sea mammal is done in water less than 25 fathoms deep. In Kuluk Bay, work to the present time has been confined to a depth of about half that.

The sea otter once could be counted by the tens of thousands in Alaskan and North Pacific waters. In one year alone, 1804, a shipment of 15,000 skins valued at one million dollars was shipped from Sitka, Alaska, to Russia. Heavy exploitation in the 1800's virtually exterminated the breed. Under the protection it has received in the past decades, the sea otter has made a promising comeback in Alaska and may be seen at other places along the Pacific Coast.

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